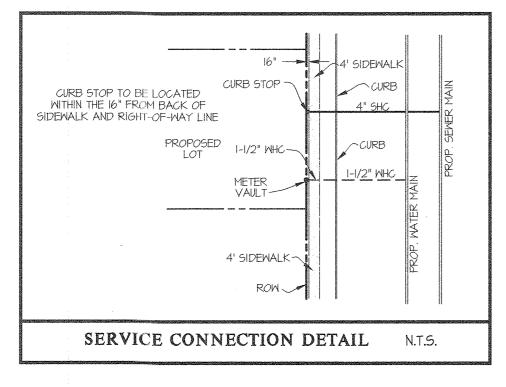
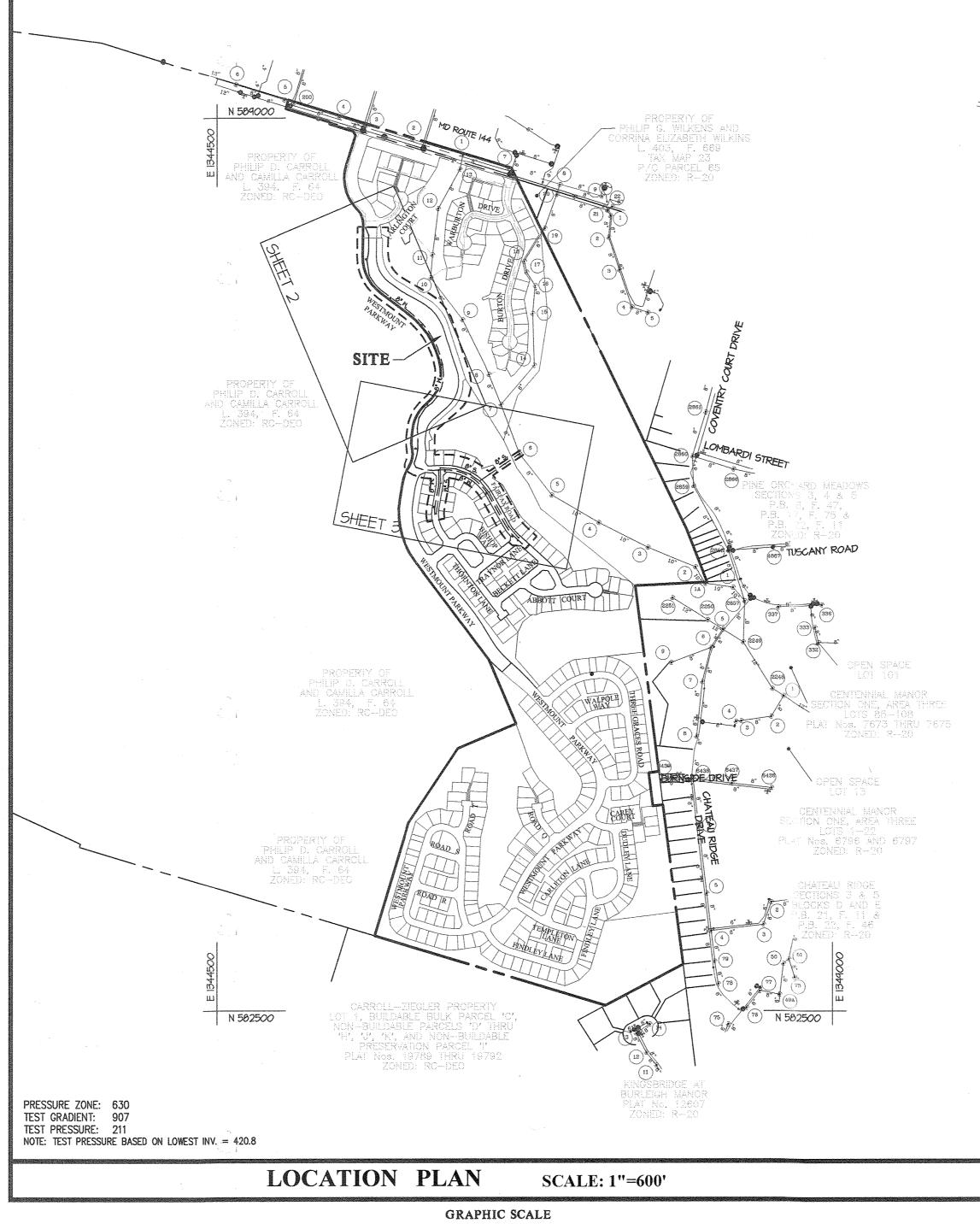


ETER (OUTSIDE WATER HOUSE CONNECTION SETTING) 8"W -WATER LINE (PUBLIC-per this contract) FIRE HYDRANT ► PUBLIC WATER EASEMENT CLEAN OUT-CONNECTION SEWER LINE (PUBLIC-----SEWER LINE (PUBLIC-per this contract) - PUBLIC SEWER EASEMENT ----- PROPOSED STORM DRAIN (per F-PLAN) ----FP------ FLOOD PLAIN LIMITS PROPERTY LINE



## SHEET INDEX

I. COVER SHEET 2. WATER AND SEWER PLAN (I"=50') 3. WATER AND SEWER PLAN (I"=50') 4. WATER AND SEWER PROFILE 5. WATER AND SEWER PROFILE



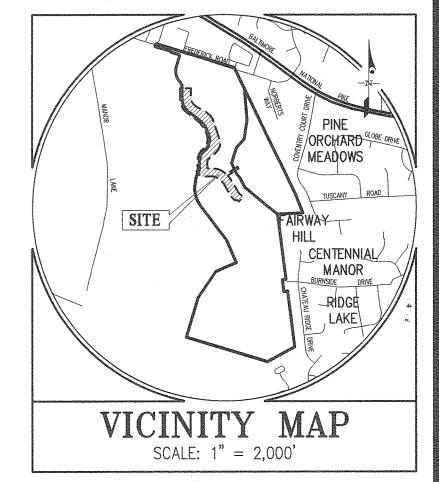
CONTRACT No. 24-5097-D

# WESTMOUNT PUBLIC WATER AND SEWER PLANS

PHASE 1A - LOTS 81 THRU 89, LOTS 125 THRU 137, LOTS 144 & 145 AND OPEN SPACE LOTS 156 THRU 158

> HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

RESIDENTIAL TYPE OF BUILDING NUMBER OF UNITS NUMBER OF S.H.C.'s 19 SINGLE NUMBER OF W.H.C.'s AREA OF COMMERCIAL LOT/PARCEL O.O AC. SEWER WATERSHED PUMPING STATION



BENCHMARKS

**16HC:** NORTHING: 589,780.908 **16HD:** NORTHING: 590,674.171 EASTING: 1,340,043.586 EASTING: 1,341,530.147

ADC MAP COORDINATES: MAP 4814 GRID J5 THRU J8

### GENERAL NOTES

I. Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.

- 2. Topographic field surveys were performed on March, 1997 by 3DI-and then updated by grade checks performed by Gutschick, Little & Weber, PA and based on F 13-008. The boundary information is based upon a field survey prepared by Gutschick, Little & Weber, PA on or about June, 2001.
- 3. Horizontal and Vertical Survey Controls: The coordinates shown on the drawings are based on Maryland State Reference System NAD '83/'91 as projected by Howard County Geodetic Control Stations No. 46BC and No. 41EA. All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are standard discs on concrete monuments.
- 5. Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for the bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- 6. For details not shown on the drawing, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- 7. Where test pits have been made on existing utilities, they are noted by the symbol 🏶 at the locations of the test pits. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
- 8. The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

7 (1 4 )	
BGE (Construction Services)	410-637-87
BGE (Emergency )	
Bureau of Utilities	. 410-313-490
Colonial Pipeline Co	410-795-139
Miss Utility	800-257-77
State Highway Administration	
VerizonI-8	00-743-00

4. All pipe elevations shown are invert elevations unless otherwise noted on the plans.

- 9. Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- 10. The contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for
- 11. The contractor shall notify the Bureau of Highways, Howard County, at (410)-313-7450 at least five working days before open cutting or boring/jacking of Section 18.114(a) of the Howard County Code.

I. All water mains shall be D.I.P. Class 54 unless otherwise noted. 2. Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.

3. Valves adjacent to tees shall be strapped to tees.

- 4. All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
- 5. Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Section 1000 and Section 1005 of the Standard Specifications.
- 6. The contractor shall not operate any water main valves on the existing water system.
- 7. Tracer wires and continuity test stations shall be installed on all DIP and PVC water mains in accordance with the Howard County Design Manual. 8. For PVC water mains, all records for the Quality Control and Qualification Test Requirements noted in Section 5.1 of the AWWA Standard C900 for PVC pressure pipe shall be submitted with the pipe material certifications or shop drawlings prior to approval of the material for use. The test records shall be for the pipe to be installed under this contract. All PVC pipe shall contain markings to allow cross referencing of the pipe supplied to the test
- 9. Unless otherwise noted on the plans or in the specifications sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains in accordance with Volume IV, Standard Specifications and Details for Construction. Seventeen (17) pound Magnesium anodes shall be installed on all valves and ductile iron fittings including restraints and harnesses. Twelve (12) pound Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All "tees" used with PVC mains shall be ductile iron.
- 10. Proper assembly of Gasketed PVC Pipe Joints: The manufacturer's insertion line of gasketed PVC pipe joints indicates the maximum depth of insertion of the spigot into the bell. After assembly of the joint, the insertion line shall remain visible. Dual insertion lines on gasketed PVC pipe indicate the maximum and minimum depth of insertion of the spigot into the bell. The contractor shall not over insert or over home the spigot into the bell of PVC
- II. All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweeps or high deflection (HD) couplings.

  No bending of the pipe or deflecting of PVC pipe joints is permitted. Where high defection couplings or 5-degree sweeps are permitted, the contractor shall provide one full pipe length (20-foot long) on either side of the high deflection coupling or 5-degree sweep. The contractor shall use a vibratory plate compactor or other approved means to thoroughly compact the #57 stone on both sides of the high defection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.
- PVC high deflection couplings shall be limited to a total defection of 3-degrees (1½-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of AWWA C900, shall have a minimum lay length of 9-inches and shall have center stops. PVC High deflection couplings shall be CertainTeed PVC High Deflection (HD) Stop Couplings or equal. Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DRIS meeting the requirements of AWWA C900 and shall be Multi Fittings (Ipex) Blue Brute DR18 or equal.
- 12. When PVC high defection couplings or PVC 5-degree sweeps are used to facilitate changes in horizontal or vertical alignments of AWWA C-900 PVC pipelines, the contractor shall install devices for the prevention of over-insertion of the PVC pipe spigots or plain ends into the push on bell joint on both sides of the high defection couplings and 5 degree sweeps. Bell stops shall be placed at the proper insertion line for the fitting. The bell stop shall be manufactured of ductile iron and incorporate an expansion retention spring to allow for pipe expansion and contraction. The bell stops shall be Series 5000 Mega-Stop, as manufactured by EBAA Iron, Inc. or approved equal.

#### Part III SEWER I. All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.

- 2. All manholes shall be 4'-0" inside diameter unless otherwise noted.
- 3. Force mains shall be D.I.P. only.
- 4. Manholes shown with 12" and 16" walls are for brick manholes only.
- 5. Manholes designated W.T. in plan and profile shall have watertight frame and cover, Standard Detail G5.52. Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
- 6. House(s) with the symbol "C.N.S." indicates that the cellar cannot be served

PREPARED FOR: WESTMOUNT DEVELOPMENT CORPORATION 100 WEST PENNSYLVANIA AVENUE SUITE 301 TOWSON, MARYLAND 21204 443-367-0422 ATTN .: CAMILLA CARROLL

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN

ACCORDANCE WITH F-16-046, SECTION 219 OF THE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL

EROSION AND SEDIMENT CONTROL BY THE HOWARD

SPECIFICATIONS AT FINAL ROAD PLAN STAGE.

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

Old Edul CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

JRC DRAWN BY: JRC CHECKED BY: 3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM

I HEREBY CERTIFY THAT THESE PLANS 💸 WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975 EXP. DATE: MAY 26, 2020



REVISION

**COVER SHEET** 

WESTMOUNT CONTRACT No. 24-5097-D PHASE 1A

LOTS 81 THRU 89, LOTS 125 THRU 137, LOTS 144 & 145 AND OPEN SPACE LOTS 156 THRU 158 HOWARD COUNTY, MARYLAND

SHEET

SCALE

AS SHOWN

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SOIL CONSERVATION DISTRICT

8-15-19

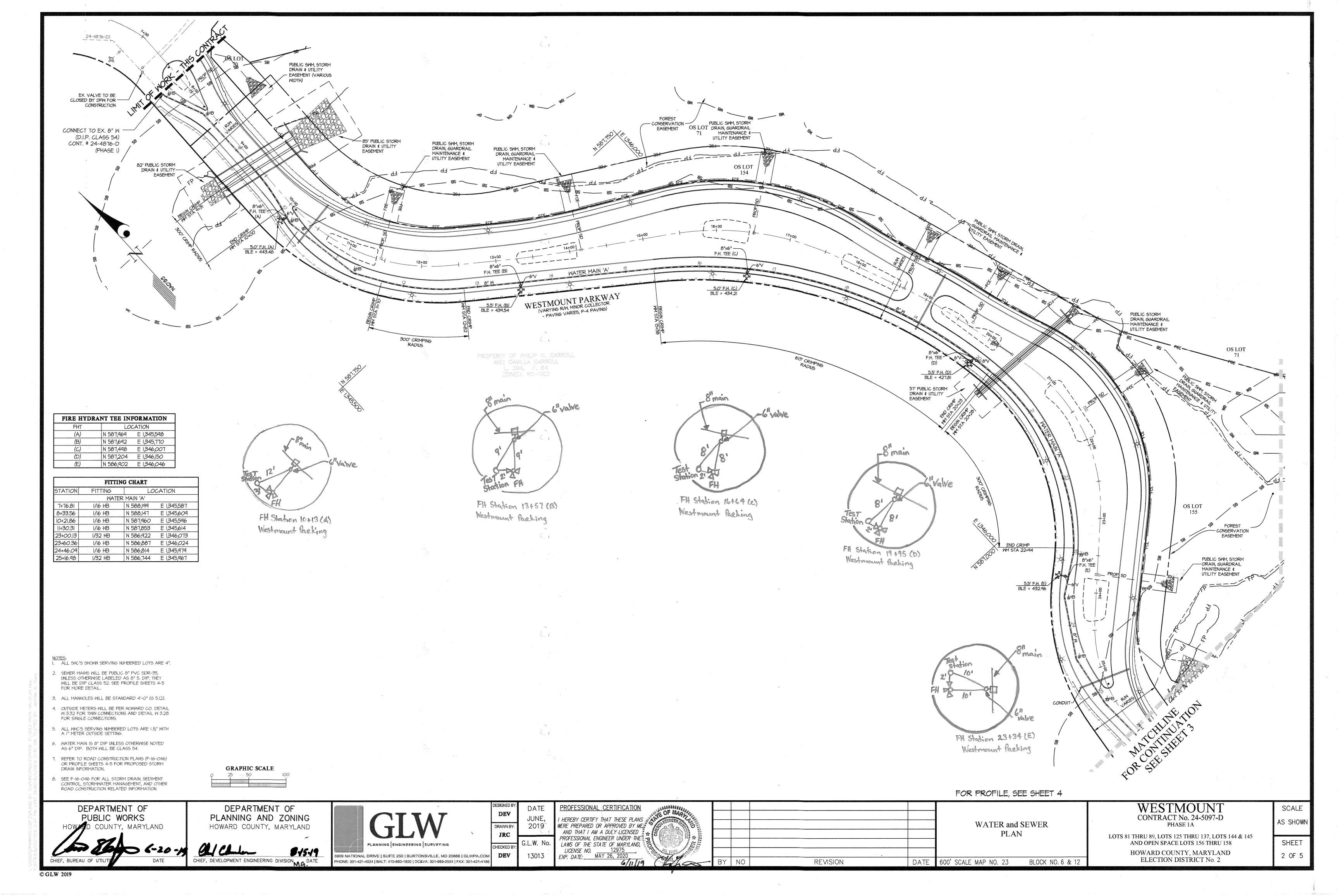
PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

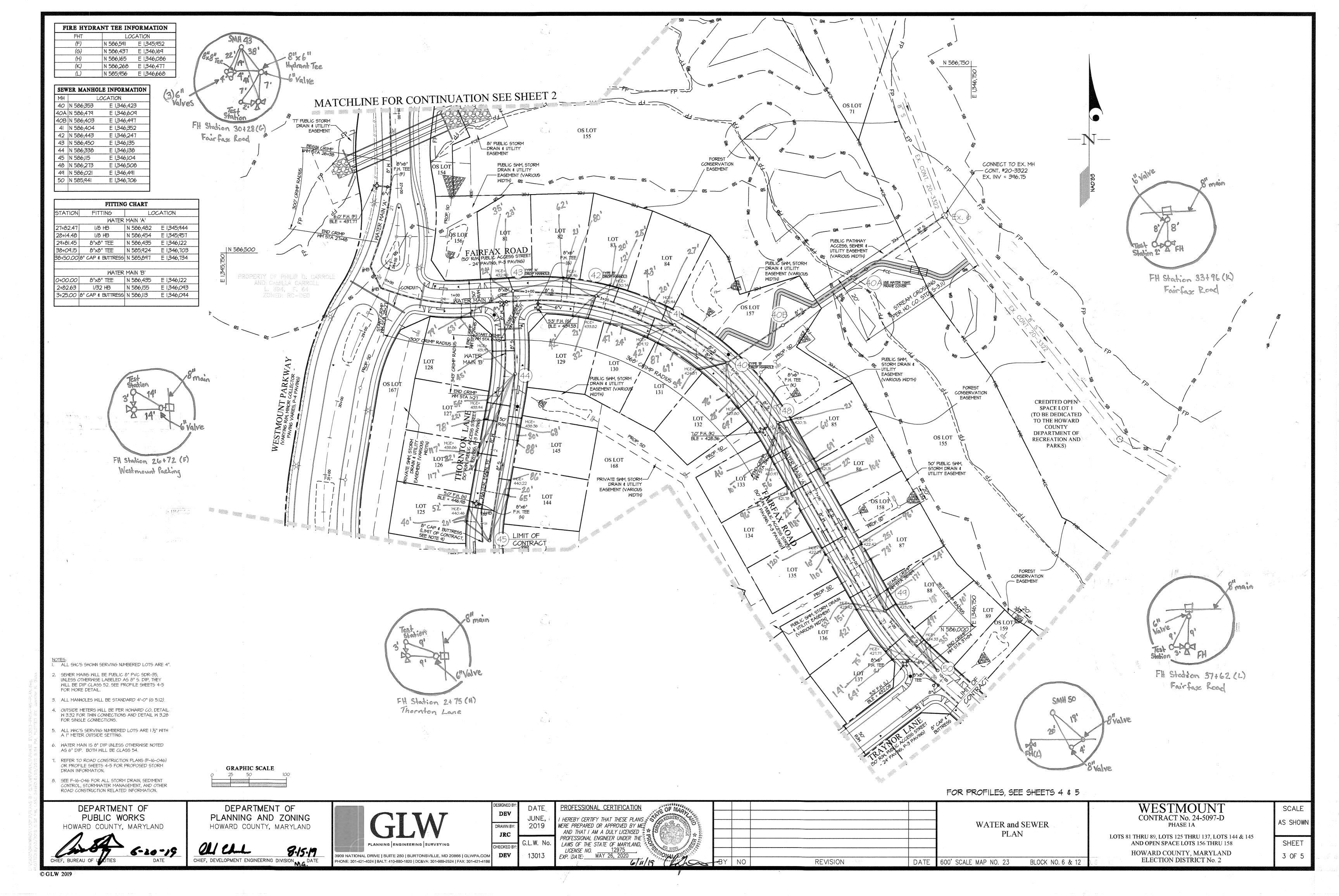
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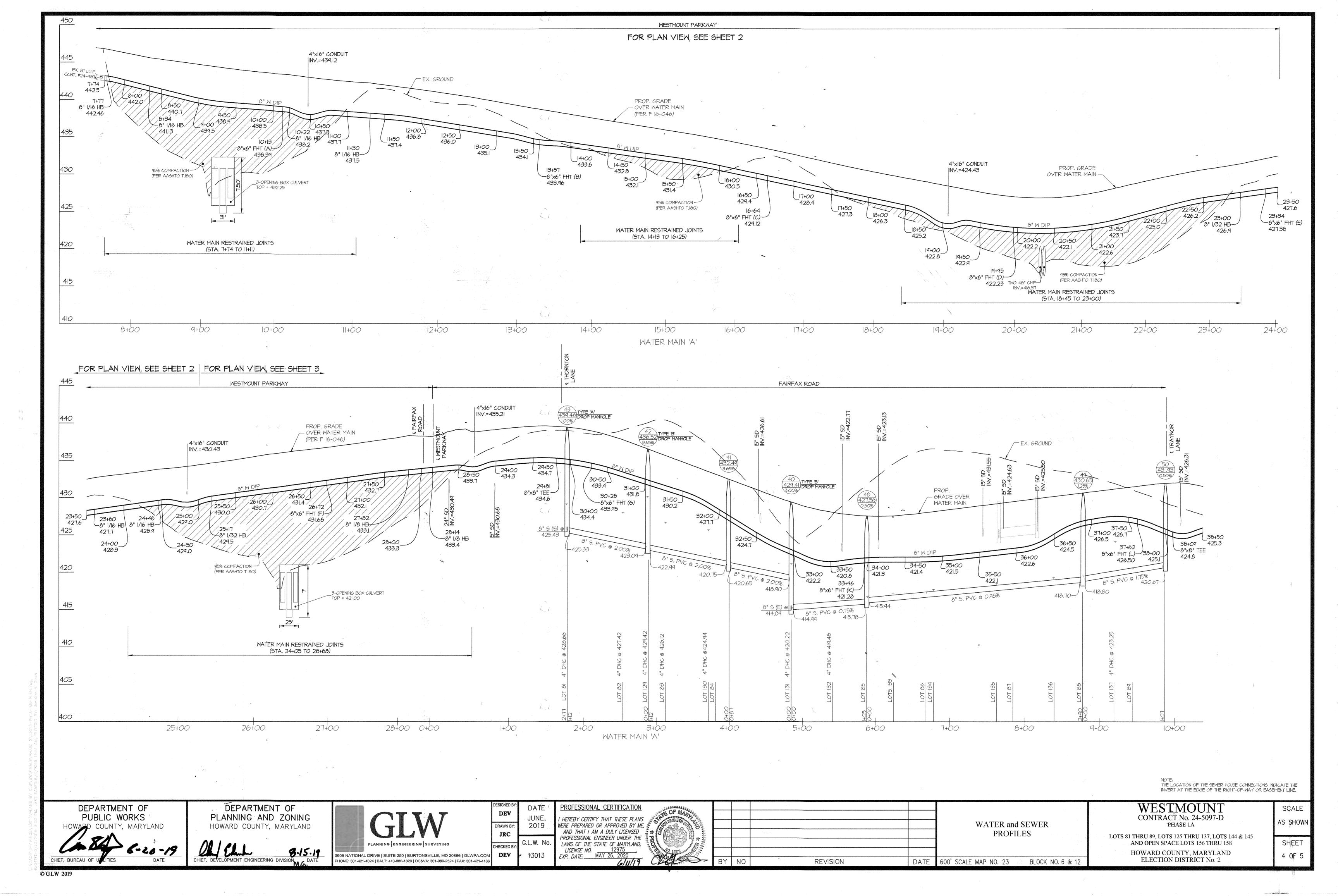
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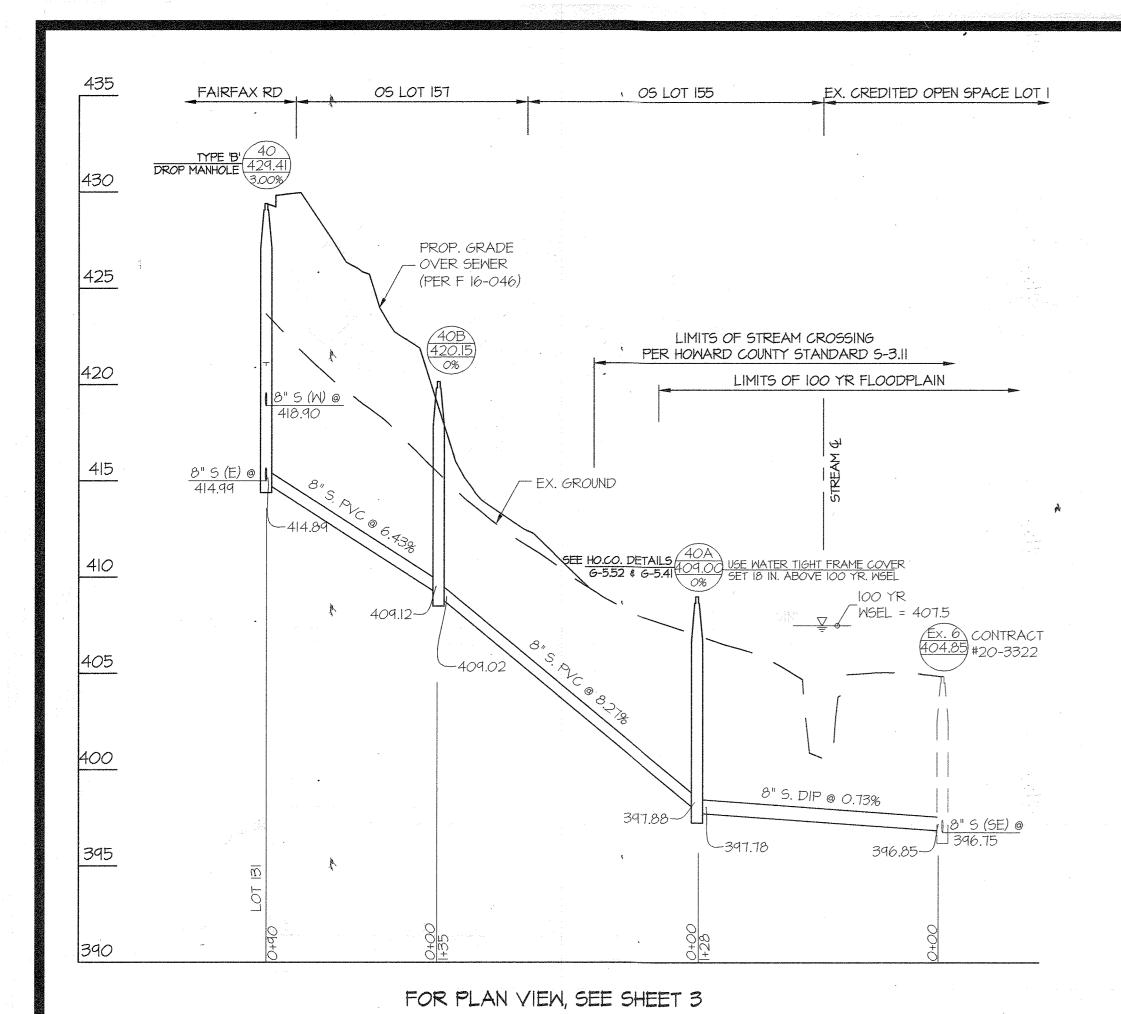
600' SCALE MAP NO. 23 BLOCK NO. 6 & 12 ELECTION DISTRICT No. 2

1 OF 5









THORNTON LANE 3gex. GROUND 一 PROP. GRADE -OVER WATER MAIN (PER F 16-046) 3+25 \_8" CAP \$ 441.90 -2+83 BUTTRESS \_l+00 435,3 442.2 434.6 -425.43 2+00 FOR PLAN VIEW, SEE SHEET 3

		atti Pirkak olevini ili titologi gittarorakkingan ili vitalimonakkina Ajecskoyakin noda indiga sactiviviti.		CONTRACTOR AND PROPERTY OF THE			
		WATER HOU CONNECTION		SEWER HOUSE CONNECTION AS BUILT			
LOT #	ADDRESS	LOCATION DIM. 1	LOCATION DIM. 2	LOCATION DIM. 1	LOCATION DIM. 2		
81	FAIRFAX ROAD	35' from SMH43	24 from SKC Let 81	21' from SMB 43	29'from WHC Lot 81		
82	FAIRFAX ROAD	62' from SM#42	21' from SIL 1482		21'fan WHC Lat 82		
83	FAIRFAX ROAD	20' from SMH 42	12'from SHC Lot 83	25' from S11141	12'from WIC Ld 83		
84	FAIRFAX ROAD	43' from SMH41	20' from SHC 6484		20' from WC LASA		
85	FAIRFAX ROAD	69' from SMH48	60' from SKC Let 85	21 from SMH 48	60'from WIC Let 85		
86	FAIRFAX ROAD	104 from SMH 48	22' from SHC Let 86	80° from SMN 48	22'from Will Let 86		
87	FAIRFAX ROAD	73'from SMH 49	25' from SHC Let 87	96° from SMH 49	25 From WHCLERE		
88	FAIRFAX ROAD	24° from 544449	17' from SHC Lot 88	18' from SMR 49	17 From WHC Let 88		
89	FAIRFAX ROAD	35' from SMN 50	10' from SHC Let 89	49' From SMN 50	10° from WIIC Let 89		
125	THORNTON LANE	40'from SMH 45	20' from SHC Let 125	62' from SMH 45	20' from WKC Lot 125		
126	THORNTON LANE	117'from 5144 44	22'from SHC 62126	117 From SMH 44	22' from WHC Lot-126		
127	THORNTON LANE	78' from SMH 44	22 from SHC Let 127	54° from SMH 44	22' from WHC Lot 127		
128	THORNTON LANE	79° from SMH 43	63' from SIC Ld 128	45' from SMH4A	63' from WHC Lot 128		
129	FAIRFAX ROAD	42' from SMN 42	21' from SIC Lot 129	32'from SMH 42	21 From WHC Lot 129		
130	FAIRFAX ROAD	47'from SMH 41	24' from StC Let 130	42' from 5911491	24'from WICLO + 130		
131	FAIRFAX ROAD	87' from SMH 40	61'from SHC Lot 131	34 from SMI 40	61'from Wilc Lot 131		
132	FAIRFAX ROAD	46' from SMH40	20' from SHC Lot 132		20' from WKC Lot 132		
133	FAIRFAX ROAD	56 From SMH48	10' from SKC Let 133	46' from SMH 48	10'from WHC Let 133		
134	FAIRFAX ROAD	118' from SMK48	22' from SHC Let 134	96° from SMH 48	22'from WHC Ld 139		
135	FAIRFAX ROAD	110' from SMH 49	10 from SYC Let 135	120' from SMH 49	10' from WIC Let 135		
136	FAIRFAX ROAD	42' from SMH 49	15'from alc Lot 136	52° from SMN 49	15'from Wilch 134		
137	FAIRFAX ROAD	69' from SMH50	19'from SHC Lot 137	75° from SVH 50	A'fon WHC Ld-137		
144	THORNTON LANE	65' from SMH 45	20'from SHC Lot 1949	86 from 5914 45	20 from WHCLd 199		
145	THORNTON LANE	88'From SMH 44	30'from 511C Ld 145	68 From SAH 44	30' from WICLOTAS		

MINIMUM CELLAR ELEVATIONS (M.C.E.)									
LOT	INV. @ MAIN/MH	DHC HT.	SHC SLOPE	SHC LENGTH (to R/W)	INV. @ R/W	M.C.E.	BF ELEV.*	FF ELEV.*	
81	425.66	3.0'	2%	17'	429.00	432.90	433.00	442.84	
82	424.42	3.0'	2%	22'	427.86	431.96	432.30	442.14	
83	423.12	3.0'	2%	21'	426.54	430.74	431.00	440.84	
84	421.24		2%	20'	421.64	425.94	429.00	438.84	
85	416.27		2%	17'	416.61	420.71	421.10	430.94	
86	86 416.85 2%		2%	18'	417.21	421.31	421.70	431.54	
87	417.96	·	2%	18'	418.32	422.42	423.50	433.34	
88	419.03		2%	16'	419.35	423.05	424.30	434.14	
89	420.05		2%	14'	420.33	424.33	424.90	434.74	
125	432.66	3.2'	2%	35'	436.56	440.46	441.00	450.84	
126	431.20	3.01	2%	33' `	434.86	438.86	439.20	449.04	
127	429.32		2%	31'	429.94	433.94	437.34	447.18	
128	427.55	-	2%	30'	428.15	431.95	435.45	445.29	
129	423.32	6.1'	2%	30'	430.02	433.82	434.30	444.14	
130	421.94	3.0'	2%	29'	425.52	429.72	430.00	439.84	
131	415.22	5.0'	2%	37'	420.97	424.87	427.10	436.94	
132	416.08	3.4'	2%	26'	420.00	423.80	424.30	434.14	
133	416.43		2%	32'	417.07	420.97	423.10	432.94	
134	416.94		2%	321	417.58	421.78	424.00	433.84	
135	417.75		2%	32'	418.39	422.29	424.80	434.64	
136	418.48		2%	32'	419.12	423.42	425.60	435.44	
137	420.15	3.1'	2%	36'	423.97	427.77	428.30	438.14	
144	431.80	4.0'	2%	16'	436.12	440.22	440.75	450.59	
145	430.10	3.5'	2%	18'	433.96	438.36	438.90	448.74	
	<del></del>	and the second s		**************************************					

\* BF ELEV. AND FF ELEV. ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. ENGINEER PREPARING THE SDP IS TO CONFIRM THE FINAL BF ELEV. PROPOSED ON THE SDP IS AT OR ABOVE THE MCE.

NOTE: THE LOCATION OF THE SEWER HOUSE CONNECTIONS INDICATE THE INVERT AT THE EDGE OF THE RIGHT-OF-WAY OR EASEMENT LINE.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DEV DRAWN BY: JRC CHECKED BY:

PROFESSIONAL CEI HEREBY CERTIFY THAT WERE PREPARED OR APP AND THAT I AM A DU

RTIFICATION		0g
T THESE PLANS PPROVED BY ME,		
ULY LICENSED ER UNDER THE	* 10 N	
OF MARYLAND, 12975	3200	

UNE, 2019	I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED		·			COVER SHEET
.W. No. 3013	PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  EXP. DATE: MAY 26, 2020					
	6/11/19	BY	NO	REVISION	DATE	600' SCALE MAP NO. 23 BLOCK NO. 6 & 12
	· · · · · · · · · · · · · · · · · · ·				-	

CONTRACT No. 24-5097-D

LOTS 81 THRU 89, LOTS 125 THRU 137, LOTS 144 & 145 AND OPEN SPACE LOTS 156 THRU 158 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 2

PHASE 1A

SHEET 5 OF 5

SCALE

AS SHOWN